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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,429	10/16/2003	Paul Mathilde Frans Kennis	Q77984	5827

23373 7590 06/28/2007
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EXAMINER	
WEINTROP, ADAM S	
ART UNIT	**PAPER NUMBER**
2145	
MAIL DATE	**DELIVERY MODE**
06/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/685,429	**Applicant(s)** KENNIS ET AL.	
	Examiner Adam S. Weintrop	**Art Unit** 2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-3, 5-6, 8-9, 10-11, and 13** are rejected under 35 U.S.C. 102(b) as being anticipated by Calhoun (US 6,463,475 B1).

Regarding **claim 1**, Calhoun discloses a method for dynamic definition of layer 2 tunneling connections (column 5, lines 35-58, where dynamic definition of the tunneling connections is seen as determining the destination of any traffic communication through the tunnel to the destination, dynamic definition being seen as any change in communication endpoints, and Figure 2, where the Tunnel Switch 100 is seen as dynamically defining the tunneling connections) comprising: requesting a layer 2 tunneled connection from a layer 2 tunneling control service element by a client terminal (column 4, lines 8-15, where the client requires a tunnel connection and request it from the "tunnel switch 100" seen as the tunneling control service element); specifying peers of a tunnel which identify a layer 2 tunneling access concentrator and a layer 2 tunneling network server by said layer 2 tunneling control service element (column 4, lines 13-19, where the L2TP access concentrator and Layer 2 access server are paired together by the request for a destination resource); configuring the peers by said layer 2 tunneling control service element (column 5, lines 54-58, where configuring peers is seen as initializing the tunneling connection between the source and destination); and creating a layer 2 tunnel between the peers (column 5, lines 49-52, where the tunneling connection is established), wherein said method further comprises deducing the peers from said requesting a layer 2 tunneled connection (column 5, lines 35-46, where once the request is made for a tunnel, then switching process deduces the peers by using any number of methods to determine what peer to connect to).

Regarding **claim 2**, Calhoun discloses the method according to claim 1, wherein the deducing is dependent on availability of infra structure and/or accounting information (column 5, lines 30-43, where determining which tunnel to use involves accounting information such as tunnel statistics or user information, or infra structure availability such as tunnel selection based on load balancing the network resources).

Regarding **claim 3**, Calhoun discloses the method according to claim 1, wherein a result of the deducing is supported by a database (column 5, lines 6-15, where to determine if a tunnel connection is to be initiated, which is seen as a part of the step of deducing what peers to connect to, a database is consulted to determine user permissions).

Regarding **claim 5**, Calhoun discloses a computer readable storage medium having stored therein a program comprising instructions for causing a computer to provide a Layer 2 Tunneling Control Service Element for dynamic definition of layer 2 tunneling connections (column 5, lines 35-58, where dynamic definition of the tunneling connections is seen as determining the destination of any traffic communication through the tunnel to the destination, dynamic definition being seen as any change in communication endpoints, and Figure 2, where the Tunnel Switch 100 is seen as dynamically defining the tunneling connections), said program instruction comprising: receiving means for receiving a layer 2 tunneled connection request (column 3, lines 60-63, where the user initiates a tunnel connection by placing a call), evaluation means for evaluating layer 2 tunneled connection request (column 4, lines 8-13, where the system evaluates the request by recognizing the request, then acting upon it), configuring means for configuring the layer 2 tunneling peers (column 4, lines 10-19, where the tunnel switch configures the pair of peers that will use the connection), and execution means for initiating configured layer 2 tunneling (column 4, lines 35-41, where the tunnel connection is initiated), wherein said evaluation means comprises deduction means for identifying suitable layer 2 tunneling peers (column 5, lines 17-46, where the system gathers information such as user ID, security permissions, tunnel statistics and deduces what peer to use as the destination).

Regarding **claim 6**, Calhoun discloses the computer readable storage medium having stored therein a program according to claim 5, wherein the deduction means comprises discovery means for retrieving infra structure and/or accounting information (column 5, lines 30-43, where determining which tunnel to use involves accounting information such as tunnel statistics or user information, or infra structure availability such as tunnel selection based on load balancing the network resources).

Regarding **claim 8**, Calhoun discloses an apparatus configured as a Network Access Server comprising processing means for processing a layer 2 tunneled connection request invoking a layer 2 tunneling control service element (Figure 3, where the Tunnel Switch 100 is seen as a Network Access Server comprising parts that process the tunnel request and the tunnel switch invokes the parts included in the Tunnel Switch, with these parts combined seen as the layer 2 tunneling control service element. This is further described in column 4, lines 8-13 with the tunnel request being carried through to the tunnel switch).

Regarding **claim 9**, Calhoun discloses the network access server according to claim 8 comprising said layer 2 tunneling control service element (Figure 3, where the Tunnel Switch 100 is seen as the network access server since it provides tunnel access to a user, and the parts inside consisting of the processing apparatus that construct a layer 2 tunneling control service element since they process the incoming tunnel by using tunnel and user information).

Regarding **claim 10**, Calhoun discloses an apparatus configured as an L2TP Client Device for dynamic definition of layer 2 tunneling connections (column 5, lines 35-58, where dynamic definition of the tunneling connections is seen as determining the destination of any traffic communication through the tunnel to the destination, dynamic definition being seen as any change in communication endpoints, and Figure 2, where the Tunnel Switch 100 is seen as dynamically defining the tunneling connections) comprising configuration means for specifying a layer 2 tunnel configuration (column 3, lines 60-63 and column 4, lines 23-25, where the user, seen as a client device, initiates a tunnel using L2TP, and this is seen as specifying a L2TP configuration) and tunneling means providing a layer 2 tunneled connection (column 4, lines 18-22, where the tunnel is used for a connection), wherein said layer 2 tunnel configuration means is controlled by a control means for replacing a deduced definition by a layer 2 tunneling peer (column 4, lines 60-64, where the incoming tunnel connection is evaluated by a dispatch process, where the dispatch process determines what destination to use as seen in column 5, lines 17-19. The dispatch process deduces the destination to use, but the destination may also be controlled by a user's permission settings, as seen is column 5, lines 30-46. This is equivalent to having a control over the deduction result the dispatch process would have normally have had if the user information was not used).

Regarding **claim 11**, Calhoun discloses the L2TP Client Device according to claim 10 wherein the configuration means comprises further receiving means for receiving the deduced definition from a layer 2 tunneling service element (column 5, lines 17-19, with the deduced definition of the destination is determined by the dispatch processor and the peer configuration receives this information as seen in column 5, lines 52-68, where L2TP is setup between the source and deduced destination).

Regarding **claim 13**, Calhoun discloses a computer readable storage medium having stored therein a program for causing a computer to execute dynamic definition of layer 2 tunneling connections (column 5, lines 35-58, where dynamic definition of the tunneling connections is seen as determining the destination of any traffic communication through the tunnel to the destination, dynamic definition being seen as any change in communication endpoints, and Figure 2, where the Tunnel Switch 100 is seen as dynamically defining the tunneling connections), said program comprising programming means for an L2TP client device replacing a definition of a layer 2 tunneling peer, according to claim 10 (column 7, lines 57-59, where software can be used for the system described).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 4 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Calhoun (US 6,463,475 B1) in view of RFC 2809.

Regarding **claims 4 and 7**, Calhoun discloses all of the limitations as described above except for using RADIUS as an invoked service from L2TP initiation. The general concept of using RADIUS with L2TP is well known in the art as illustrated by RFC 2809. In the RFC 2809, L2TP negotiation is used with RADIUS services to negotiate tunnel connections (paragraph 4.2, page 13, lines 32-40). The RADIUS proxy is used to locate tunneling endpoints by the NAS, which is used to gain access to the network via tunneling (page 2, lines 1-16). This is seen as a RADIUS service being invoked by a tunneling protocol in order to assist in the connection. Also RFC 2809 teaches that RADIUS can be used with L2TP protocol for compulsory tunneling (Abstract). It would have been obvious to one of ordinary skill in the art to modify Calhoun with using RADIUS services as taught by the RFC 2809 in order to make use of RADIUS capabilities such as dual-authentication as to increase security and generate more accounting records from both ends of the tunnel.

Response to Arguments

5. Applicant's arguments filed on 5/16/07 have been fully considered but they are not persuasive.

Summary and Response to Arguments

A. Applicant argues the rejection under 35 U.S.C. 102(b) as being anticipated by Calhoun for claims 1-3, 5-6, and 8-13 as Calhoun does not disclose the claimed limitation of "dynamic definition" of a tunneling connection.

As to point A, applicant's arguments are not persuasive as Calhoun discloses choosing different communication endpoints for tunneling based on information relating to the tunnel and the user, which is seen as a dynamic definition of tunneling connections. See above rejection.

B. Applicant argues the rejection under 35 U.S.C. 103(a) as being unpatentable over Calhoun in view of RFC 2809 for claims 4 and 7, as the combination of Calhoun and RFC 2809 do not teach the claimed limitations of using RADIUS as an invoked service with L2TP initiation and the "dynamic definition" of tunneling connections.

As to point B, applicant's arguments are not persuasive, as Calhoun discloses choosing different communication endpoints for tunneling based on information relating to the tunnel and the user, which is seen as a dynamic definition of tunneling connections. See above rejection. Also RFC 2809 teaches RADIUS can be implemented along side a L2TP connection compulsory tunneling process, seen as invoking RADIUS from a tunneling request. See above rejection.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam S. Weintrop whose telephone number is 571-270-1604. The examiner can normally be reached on Monday through Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AW 6/21/07

JASON CARDONE
SUPERVISORY PATENT EXAMINER